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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,117	11/17/2003	Woon-Kyung Lee	SEC.697D	9793
7590 04/19/2005 VOLENTINE FRANCOS, PLLC SUITE 150 12200 SUNRISE VALLEY DRIVE RESTON, VA 20191			EXAMINER TRINH, MICHAEL MANH	
			ART UNIT 2822	PAPER NUMBER

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/713,117

Applicant(s)

LEE ET AL. 

Examiner

Michael Trinh

Art Unit

2822

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 09/566,916.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11-17-03</u> . | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 2822

## DETAILED ACTION

\*\*\* This office action is in response to filing of the application on November 17, 2003.

Claims 1-10 were canceled. Claims 11-24 are current pending.

### *Claim Rejections - 35 USC § 112*

1. Claims 11-17, 19-20, and 21-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

\*\* Claim 11 is indefinite and incomplete, since it depends on canceled claim 1.

Other dependent claims are rejected as depending on rejected indefinite base claim.

\*\* Claim 21 (lines 13-14) is unclear for using of different terms for the same layer. It is suggested the term "a second silicon layer" (at lines 13-14 of claims 18 and 21) be amended as --a second polysilicon layer--, since "the first and second polysilicon layers" is already mentioned at line 15, claim 21 (claims 23 and 24 also recite "polysilicon").

\*\* Similarly, Claim 18 (lines 13-14) is unclear for using of different terms for the same layer. It is suggested the term "a second silicon layer" be amended as --a second polysilicon layer--, since "the first and second polysilicon layers" is already mentioned at line 15, claim 21.

### *Allowable Subject Matter*

2. Claims 18, 21-24 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, as suggestion and set forth in this Office action.

3. The following is a statement of reasons for the indication of allowable subject matter

The references including Hasegawa (5,891,780), Sheng (5,585,297), Chung (5,891,779), of record, alone or in combination, do not anticipatively disclose each and every aspect of the claimed method, or fairly make a prima facie obvious case of the claimed method, in combination with other processing claimed limitations as recited in base claims, the inclusion of, as in claim 21, forming a photoresist patterns on the first polysilicon layer formed on the gate insulation layer, which entirely cover a peripheral circuit region but are patterned in a cell array region to expose regions which are to become buried impurity regions; performing ion

Art Unit: 2822

implantation using the photoresist patterns as a mask so as to form buried impurity regions near the surface of the semiconductor substrate, wherein the buried impurity regions are parallel, separated from each other by a predetermined interval and extend in the same direction; removing the photoresist patterns, and sequentially stacking a second polysilicon layer and a metal silicide layer on the first polysilicon layer; and sequentially etching the first and second polysilicon layers and the metal silicide layer so as to form word lines, wherein the word lines are parallel, separated from each other by a predetermined interval and extend in the perpendicular direction to the buried impurity diffusion region.

\*\*\*\*\*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael M. Trinh whose telephone number is (571) 272-1847. The examiner can normally be reached on M-F: 8:30 Am to 5:00 Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amir Zarabian can be reached on (571) 272-1852. The fax phone number is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application should be directed to the receptionist whose telephone number is (703) 308-0956.  
Oacs-9



Michael Trinh  
Primary Examiner